

PROCEEDINGS

OF THE MERCHANT MARINE COUNCIL

CENTENNIAL OF THE
PETROLEUM INDUSTRY



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PROCEEDINGS

OF THE

MERCHANT MARINE COUNCIL

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The Merchant Marine Council of the United States Coast Guard

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FRONT COVER

Tankers all! Three vessels show the evolution of the tanker from the sailing ships which lingered on the sea lanes as late as the 1930's to the modern supertanker. Depicted are an early sailing tanker (*photo courtesy American Petroleum Institute*); the SS *H. G. Folger*, the first vessel of the Atlantic Refinery Co. (*photo courtesy Atlantic Refinery Co.*), and the SS *Esso Gettysburg*, one of the fastest and largest tankers under the American flag (*photo courtesy Newport News Shipbuilding & Dry Dock Co.*).

BACK COVER

A fitting reminder from one of a series of Matson Lines posters on the subject of safety. Walk with Caution. Illustration by Grandon S. Seal, courtesy *Matson Navigation Co.*

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CENTENNIAL OF THE PETROLEUM INDUSTRY

OIL CENTENNIAL

The centennial of the petroleum industry spans the period of this country's greatest economic and social growth. Since August 27, 1859, when Edwin L. Drake drilled the Nation's first commercial oil well, the United States has changed from a nation of small farms and workshops to that of a highly organized industrial complex. This growth has been made possible with the assistance of petroleum as a source of power and heat, as a lubricant for every wheel that moves, and as a mine for raw materials. We in the Coast Guard are proud to join the Nation in wishing the petroleum industry congratulations on its 100th anniversary.

A. C. Richmond

A. C. RICHMOND
Vice Admiral, U.S. Coast Guard
Commandant

ALCOA SHIP WINS CITATION OF MERIT



FOR SKILLFUL SEAMANSHIP in rescuing five men from the waterlogged schooner *Amberjack II* in the Straits of Florida last winter, the captain, officers, and crew of the *Alcoa Pioneer* were presented a Citation of Merit from the Marine Section, National Safety Council, and the American Merchant Marine Institute. In presentation ceremonies aboard the ship in New Orleans, Captain John F. Kettler, Officer in Charge of the Coast Guard's New Orleans Marine Inspection Office, is pictured making the award to Captain Selma Sorensen of the *Alcoa Pioneer*. Others in the photo are, left to right: Captain T. L. Proud, Alcoa's Senior Port Captain; J. W. Mullis, bos'n; E. A. Yates, chief engineer; C. H. Williams, AB; T. H. Spiers, AB; and W. W. Bramble, chief mate. Photo Courtesy Alcoa Steamship Co.

TOLL FOR THE BRAVE

The annual Memorial Service in Gloucester, Mass., pays tribute to the more than 10,000 fishermen from Gloucester who have lost their lives at sea. The service generally consists of a parade, prayers and the throwing of wreaths into the waters of the Annisquam River at the Blynman Bridge, where the river empties into Gloucester Harbor.

In 1959, for the first time in almost a dozen years, there was no rollcall for the dead. No Gloucester fisherman has been lost since August 1, 1958.

The year, however, was not without its casualties. More than twenty men from the port were saved from death at sea. Among them were the ten men picked up in two dories off the Grand Banks when their dragger burned and sank.

Three more Gloucestermen were rescued in June when their fishing boat ran aground off Cape Cod. Three men from Boston were drowned in that accident.



CHANGE OF EDITOR

With this issue Lieutenant A. R. Hackbarth relieves Lieut. Cmdr. B. F. Rush as editor of the *Proceedings*. LT Hackbarth, a former licensed officer in the merchant marine, was commissioned in the Coast Guard in 1956 under the provisions of Public Law 219, and served in the Marine Inspection Office, San Francisco, and aboard the cutter *Northwind*, prior to his present assignment.



ACROSS THE SEA LANES

By Frank O. Braynard

Reprinted from the American Petroleum Institute Quarterly



NEWEST ADDITION to the California Shipping Company's fleet, the *Alaska Standard* represents the latest in tanker design. (Photo by Ackroyd, courtesy California Shipping Co.)

THE FIRST full cargo of petroleum was shipped from Philadelphia to London in 1861 in barrels in the hold of the 224-ton American brig *Elizabeth Watts*. Leakage hazard was so feared that her master was forced to sail with a shanghaied crew. Though the voyage was completed without mishap, something better had to come.

That something better was the iron-hulled sailing tanker, specially designed to carry oil. It was the innovation that was to make widespread use of oil economically feasible. For, it meant doing away with casks and tins which soon proved uneconomic when oil became plentiful, and substituting the hull of the vessel as the container or tank. Thus, the term "tanker." However, the idea emerged long before the practical bulk tanker was a reality.

An early iron sailing tanker named the *Ramsay*, built by a Britisher in 1863, boasted a subdivided cargo space with a patent cargo expansion feature. Her tanks were airtight. They were connected with adjoining

water tanks by siphons. As the oil expanded, it forced air into the water tank, in turn forcing the water to enter the siphon to a degree. When contraction occurred, the water level returned to normal. Not only was bulk transportation of oil safer and cheaper, but petroleum carried in this fashion could be loaded and discharged much more rapidly by pumps. The modern tanker was beginning to take form.

The skyrocketing demand for oil provided incentive for further design development at a pace unrivaled by any other ship type in all history. Although the bulk oil sailing ship was to be with us up until the 1930's, the use of steam propulsion with its guarantees of greater dependability and higher speed potential was the next goal.

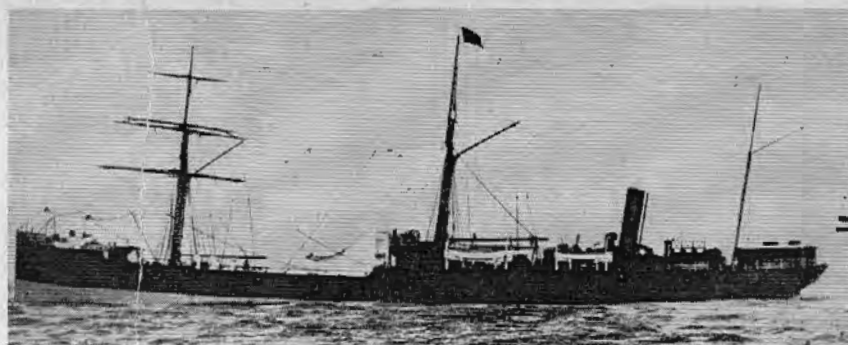
FIRST TANKER

Strange as it may seem, the first oceangoing steam tanker was designed as a passenger ship. This was the *Vaderland*, pioneer steamer of the famed Red Star Line. Launched in

England in 1872 but flying the Belgian flag, the ship had her engines and smokestack aft, a design which has since been universally adopted for tankers. She had five bulk oil tanks extending nearly half of her 320-foot length, but was also fitted to accommodate a large number of immigrants. The combination of oil and passengers was looked upon with alarm by port authorities, and, when forced to make a choice, her owners favored the lucrative immigrant trade. The *Vaderland* never served as a tanker, but her design was not forgotten and the advantages of steam soon triumphed.

The first steam tanker actually put to use was built in 1878 in Sweden by Robert and Ludwig Nobel, brothers of Alfred Nobel, the inventor of dynamite. Named *Zoroaster*, she was not able in another way. She burned oil as fuel. Operating in the Caspian Sea trade, she flew the flag of Russia.

The truly modern tanker, however, was born in 1886 with the launching in England of the German vessel *Glückauf*, meaning "good luck." The



PROTOTYPE of today's tanker, the German owned SS *Glückauf*, was 300 feet in length.

(Photo courtesy American Petroleum Institute)

Glückauf is recognized as the prototype of today's vast tanker fleet. Her bones can still be seen off Fire Island, at low tide.

Her design incorporated the best of all the earlier experimental oil carriers and many new features. The hold was subdivided by a centerline bulkhead and by athwartship bulkheads. Her hull plating itself was the tank.

The *Glückauf's* maiden arrival at New York in 1886 was far from gala. Longshoremen, oil workers, and cask makers saw in her an end of their trade. Coal merchants were persuaded to boycott her, but she re-fueled at St. John's, Newfoundland, and carried on. Today her successors ply every sea lane, carry every type of liquid cargo from hot asphalt to wine.

FIRST U.S. TANKER

The first American steam tanker was the *Standard*, built in 1888 at Chester, Pa. The Standard Oil Co., her owners, also experimented with giant tank barges intended to bring newly discovered Texas oil up to the New York area. One of the pioneer steam tankers designed to tow tank barges on this run was the *Atlas*.

ABOUT THE AUTHOR

EDITOR, author, and marine artist, Mr. Brannard's chief interest in at least thirty of his forty years, has been ships and shipping. Twice President of The Steamship Historical Society of America, he has written two books: *Lives of the Liners*, and *Famous American Ships*, the latter now being in its third edition. Both volumes are illustrated by his own pen-and-ink drawings. For some three years he served as ship news reporter for The New York Herald Tribune. A graduate cum laude from Duke University he received his M. A. from Columbia University. He has been associated for 12 years with the American Merchant Marine Institute handling public relations for the 55-member shipping association. He has also been executive director of the New York World Trade Week Committee for three years.



ALL-WELDED T-2 tankers kept the oil flowing during World War II. They are still active in

America's tanker fleet. (Photo courtesy American Petroleum Institute)

But sail was not dead and the world's only seven-masted schooner became a bulk oil carrier. Named the *Thomas W. Lawson*, she was an ungainly craft and was lost with all hands in 1907. By World War I, however, the *Glückauf's* design was well established and thereafter developments were confined largely to propulsion and size. It was at this time that the Navy developed the fleet oiler.

A major between-the-wars development was the conversion from geared turbine propulsion to diesel-electric drive of the Atlantic Refining Co.'s tanker *Allentown* in 1925. Still another technical achievement, which the oil industry did much to encourage, was welded construction. Built by the Sun Shipbuilding & Dry Dock Co. in 1931, the little coaster *White Flash*, also owned by Atlantic Refining, was the first all-welded sea-going tanker. So pleased was Atlantic with this vessel that a major all-welded deep-sea tanker was designed. Named *J. W. Van Dyke*, she was notable also as a pioneer of turbo-electric machinery.

SPEED AND SIZE

Since World War II, the two most significant changes in tankers have been in speed and in size. The average speed has risen from 11.1 knots to 15.4 knots. The average deadweight capacity has increased by nearly 50 percent. Tankers of nearly 90,000 deadweight tons are now in service. The first of at least two mammoth 104,500-ton vessels to be built in Japan will be started this year. Two even larger craft are to be built at Quincy, Mass., by the Bethlehem Steel Co.'s Shipbuilding Division.

The new 100,000-type tankers will have capacity that staggers the imagination. One such vessel will carry on a single voyage enough fuel to fill the tanks of 2,150,000 passenger automobiles.

The end is not in sight. There has been serious talk of 500,000-ton tankers. A nuclear tanker is already on the drawing boards. Even high speed submarine tankers, capable of push-button operation from a distance of 3,000 miles, are predicted.

RECOMMENDED COURSE CHANGE

By Lieut. Commander Edward F. Oliver, USCG

IN A PREVIOUS article on maneuvering boards and radar plotting, the several advantages of using a large scale maneuvering board (H.O. 2665) in lieu of the small size (H.O. 2665a) was pointed out.¹ To demonstrate the advantages, a hypothetical meeting situation where two ships approached and passed well clear on opposite courses, was plotted on a maneuvering board. However, a more realistic problem for the navigator might be the hypothetical situation where two approaching vessels are on converging courses and it is necessary for one of the vessels to change course.

So once again you find yourself on the North Atlantic run, standing a cold, lonely 0000-0400 watch. Since you read the previous article on maneuvering board plotting in the January 1959 issue of the *Proceedings*, you are now equipped with a handy, plastic covered, large scale maneuvering board, a grease pencil, a rag, and you are ready to navigate with radar.

Your ship is approaching the English channel, a few miles southwest of Lizard Head. You are steering a true course of 055 degrees and making 15 knots. The radar is set on the 20-mile scale and you pick up a pip ahead.

From bitter experience you are well aware of the old man's standing night order to call him if any vessel is going to pass within 1 mile, so you intend to make a radar plot of the approaching ship and find the closest point of approach (CPA).

First, take an accurate range and bearing and plot the pip on the maneuvering board. (See figure 1.) Use a 2:1 scale² (one concentric ring equals two knots). Your plot shows the range to be 20,000 yards and the bearing to be 040 degrees True at 0205 hours.

In a few minutes, say at 0208, take another range and bearing and plot as before. This time the range is 17,500 yards and the bearing is 040.5 degrees True.

¹ If the large size maneuvering board is not available at the nearest Hydrographic Office Sales Agent, it may be ordered from the appropriate distribution office. Vessels operating in the Atlantic trade should write to the Hydrographic Distribution Office, U.S. Naval Aviation Supply Depot, 5801 Tabor Avenue, Philadelphia 20, Pa. (This office was previously located in Scotia, N.Y.) Vessels operating in the Pacific trade should direct their request to the Hydrographic Distribution Office, U.S. Naval Supply Depot, Clearfield, Ogden, Utah.

² Choice of scale will depend upon the mariner and the problem involved. If 1,000 yards or one-half mile is a unit on the plot of the pip, 2:1 scale would be preferable. It would otherwise be 1:1 in miles.—Ed.

Recent collisions of radar-equipped ships have emphasized the need for radar plotting. Radar in itself is merely an electronic aid which produces facts for the watch officer to evaluate. Lieutenant Commander Oliver, in his article "Maneuvering Board—Large or Small?" in the January 1959 issue of the *Proceedings* indicated how these facts could be evaluated with the use of the maneuvering board. The favorable comments and reception of the article have prompted the author to follow the subject with a hypothetical problem to illustrate the use of the maneuvering board to determine possible courses of action under a given set of circumstances. With the data received from the radar and its correct evaluation the mariner can utilize his commonsense and experience to take proper action. The comments and opinions expressed by the author are his own.—Ed.

Your ship, of course, is always at the center of the relative plot on your maneuvering board, so the CPA will lie on the relative movement line where it passes closest to the center. Therefore, connect the two points you have plotted by fairing in a straight line with accuracy on the small size maneuvering board and extend this line across the board. (See figure 1.) Now, by inspection you determine where the line is closest to the center. Measure the distance with your grease pencil "ruler" and you find that the other vessel will pass approximately 1,200 yards off to starboard, or less than 1 mile. This means the captain must be called and he will want to know what course change you recommend so as to pass the other vessel 2 miles off.

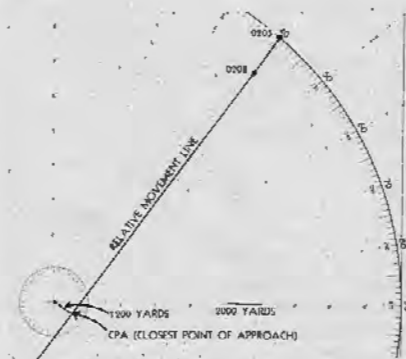


Figure 1.

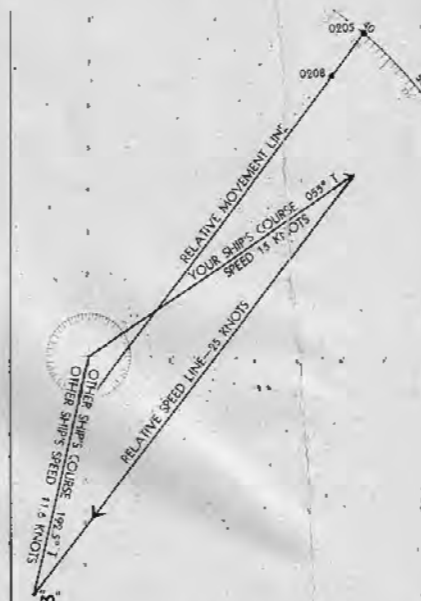


Figure 2.

To determine what course change to recommend you must continue on with your plot and first solve for the course and speed of the other ship:

First, lay off on your maneuvering board your ship's true course and speed by an arrow. (See figure 2.) The length of the arrow represents the speed in knots (2:1 scale).

Next, draw a line parallel to the relative movement line (the 0205-0208 line) through the end of your course and speed arrow and extend it in the direction of the relative movement.

Now, by using the *Three-Minute-Rule* (the number of yards traveled in 3 minutes divided by 100 equals the relative speed in knots) determine the relative speed of the vessel observed. Take off the distance between the 0205 and 0208 position by using your grease pencil "ruler." Using the concentric ring, range scale you determine that the relative movement in 3 minutes was 2,500 yards. Divide 2,500 by 100 and you find the relative speed is 25 knots. Using the same speed scale you used for your ship's speed arrow (2:1), lay off 25 knots on the relative speed line. Mark the end of the relative speed line by "M." Connect the center of your plot and point "M," and you have the true course and speed arrow for the target. The course is 192.5° T and the speed is 11.6 knots. (See figure 2.)³

³ Solutions to the plot in this article have been obtained with a grease pencil on heavy plastic. Greater accuracy would be obtained with the use of precision instruments.—Ed.

Now, you must act on the assumption the other ship intends to maintain course and speed and use the other ship's true course and speed arrow as the basis to determine your recommended change of course. Designate a time at which you will be ready to change course. Assuming it will take you 6 minutes to work out the plot and call the captain, project the other ship's position 6 minutes ahead from the 0208 position. Since the ship's relative movement in 3 minutes was 2,500 yards, in 6 minutes it would be 5,000 yards. Label this position 0214 E.P. (See figure 3.)

Now at 0214, if you change course and the other ship does not, *his relative movement line will appear to change* * * * and you want it to change so that it passes the center (or your ship) 2 miles off. So, project a relative movement line from the 0214 E.P. which passes 2 miles off the center of the plot. Now, draw a new relative speed line parallel to the projected movement line through the other ship's true course and speed arrow. You now have two legs of a

triangle and you want to solve for the third leg which will be the new course and speed arrow of your ship. Since you know that the speed of your ship will remain constant,⁴ merely mark off on the new relative speed line where it is intersected by the concentric ring (2:1) which corresponds with your speed of 15 knots. Draw a line between the center and this mark and you have your ship's new true course arrow—032° T. It shows you should change course to port 23 degrees. (See figure 3.)

You are ready to call the old man through the speaking tube. Without waiting for him to wake clear up, you can recommend that you haul left to 032° T at 0214 and that the other ship should pass 2 miles off your starboard beam. With such positive information, he will probably tell you to go ahead and change course and roll over and go back to sleep. In any event you have demonstrated your proficiency as a 20th-century navigator.

⁴ Changes in speed would naturally alter the problem.—Ed.

Many of you have perceived that you could have hauled to starboard so that the other ship would have passed 2 miles off your port beam; but, to do this you would have had to change course some 41 degrees. (See figure 4.) Naturally, if it becomes necessary to change course, you want to make the minimum course change.⁵ As you become more familiar with the solution of the type of problem we have discussed here, you will be able to tell in a matter of seconds, by projecting two relative movement lines to the port and starboard of the center, which is the best course change to make.

In the foregoing discussion, you found you were on a converging course with an approaching ship, and yet within 9 minutes you had determined the other vessel's course, speed, and a course change to make so as to pass a given distance off the other ship. While this is precise navigation, it is the minimum to be expected of a conscientious, modern day, ship's navigator. As was pointed out in the previous article, the watch officers on the *Andrea Doria* and the *Stockholm* saw each other's pips 26 minutes before the disastrous collision. One can but wonder if the disaster would have occurred if either officer had taken 9 minutes to determine what course change was necessary to pass 2 miles off.

⁵ Any course change should depend upon the circumstances of the case and adherence to the Rules of the Road. Authorities agree that if a course change is to be made, it should be made as early and as emphatically as possible.—Ed.

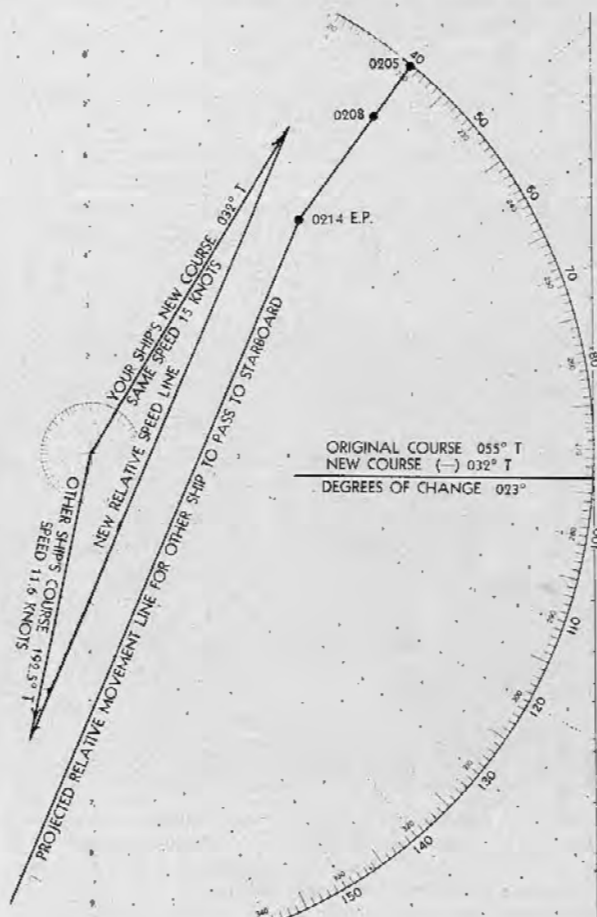


Figure 3.

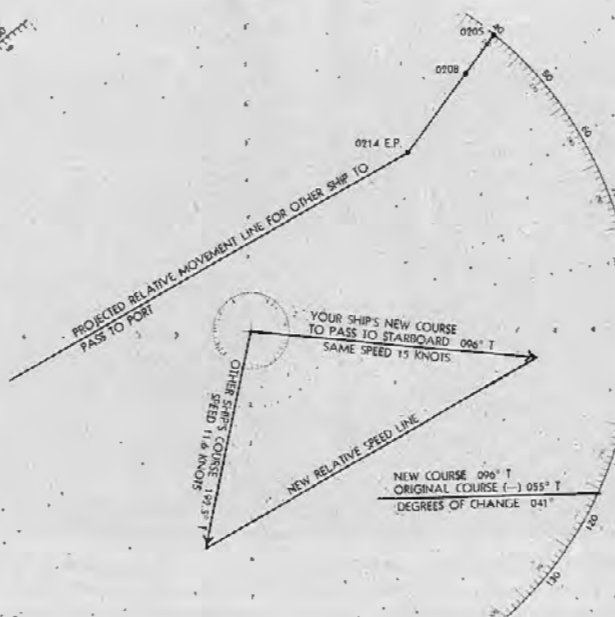


Figure 4.

PUBLIC HEALTH SERVICE AWARDS



AMERICAN EXPORT LINES is awarded the USPHS Special Citation for excellence in passenger and cargo vessel sanitation for the fourth consecutive year. L. S. Andrews, Vice President, Operations (left), and Captain E. B. Ellis, Master of the SS *Excalibur*, accept the citation certificate from Admiral Mark D. Hollis, Assistant Surgeon General, PHS, at a luncheon ceremony aboard the *Excalibur*. American Export Lines was cited for achieving 95 percent or better on a Public Health Service inspection on each of the 30 vessels in its fleet.



LUCKENBACH STEAMSHIP CO. is awarded the USPHS award for the fourth consecutive year at a ceremony aboard the SS *Harry Luckenbach*. Pictured from left to right are Dr. John B. Porterfield, Deputy Surgeon General, PHS, Washington, D.C.; Mr. James Sinclair, President and General Manager, Luckenbach Steamship Co.; and Dr. Harold M. Graning, Regional Director. In 1958 each of the 14 ships operated by the company achieved a rating of 95 percent or better on official Public Health Service inspections.

TEN AMERICAN-FLAG steamship companies were awarded the U.S. Public Health Special Citation for Vessel Sanitation for 1958 by maintaining high levels of sanitation aboard all their vessels.

American Export Lines and *Luckenbach Steamship Co.* had the distinction of receiving the award for the fourth consecutive year. Third year winners were the *Esso Standard Oil Co., Marine Department*; *Farrell Lines, Inc.*; *Marven Steamship Corp.*; and *United States Lines*. *Calmar Steamship Co.* and *Seatrains Lines* received the citation for the second time.

Initial winners were *American President Lines*, the Lake Fleet Division of *Republic Steel Corp.*, and the Inland Waterways Department of the *Esso Standard Oil Co.*



FARRELL LINES is awarded the Special Citation of the USPHS of ceremonies aboard the SS *African Star* by Malcolm C. Hope, Chief, General Engineering Program, PHS. Admiral George Wauchope, Executive Vice President of the Company, is shown receiving the award for the 16 vessels of the Farrell Line Fleet.



AMERICAN BANNER LINES receives its first Letter of Commendation in recognition of the excellent sanitation maintained aboard its SS *Atlantic* in the initial year of its operation. Sylvan C. Martin, Regional Engineer, PHS (left) is shown presenting the award to Vice Admiral Roscoe H. Hillenkoetter, Chief Executive Officer of ABL (center), and Captain Konstanty Kowalski, Master of the vessel (right), in a ceremony at the Latos Club in New York.



PANAMA LINES officials receive a Letter of Commendation for excellence in sanitation aboard their vessels SS Ancon and SS Cristobal from the U.S. Public Health Service. Left to right are Paul Resnick, Sanitation Specialist, PHS; Sylvan G. Martin, Regional Engineer, PHS; Major General W. E. Potter, Governor-President, Panama Canal Co.; and Captain W. J. Steffens, Panama Lines. The presentation marked the third year that the company has earned such an award.

Eligibility for the citation is based on detailed inspections by experienced U.S. Public Health inspectors of some 166 items of construction and maintenance having a sanitary significance. The award, created in 1953 by the Surgeon General of the

USPHS, recognizes the efforts and cooperation of the operating personnel in maintaining a high standard of sanitation reflected by a rating of 95 percent or better.

Letters of Commendation were



MARVEN STEAMSHIP CO. (formerly Ore Navigation Corp.) and the CALMAR STEAMSHIP CO. are awarded the Public Health Service Citation for excellence in vessel sanitation by Joseph B. O'Connor (left), Regional Director of the Department of Health, Education, and Welfare. W. H. Warley, President (now retired) of both Calmar and Marven, is shown at right receiving the award at ceremonies in his office. Marven Steamship Co. vessels carry iron ore from South American ports to plants of the Bethlehem Steel Co. in the United States.

given to American Banner Lines, Bloomfield Steamship Co., General Petroleum Corp., Lake Champlain Transportation Co., Pacific Coast Transportation Co., Panama Canal Co., Richfield Oil Corp., and Standard Oil Co. of Indiana.



ESSO STANDARD OIL CO. is presented a Special Citation for the excellence in sanitation aboard the vessels in both its marine department and inland waterways division by Malcolm C. Hope, Chief of the General Engineering Program, Division of Sanitary Engineering Services of the Public Health Service (center). John D. Rogers, Manager of the Marine Department (left) and Sydney Wire, Manager of the Inland Waterways Division (right) are shown receiving the award at ceremonies in the New York Yacht Club. These citations were awarded because each of the 27 tankers of the Marine Department and each of the 12 tankers of the Inland Waterways Department achieved a rating of 95 percent or better on an official Public Health Service inspection.



REPUBLIC STEEL Corp's Lake Fleet Division is presented with their first Public Health Service Special Citation for excellence in sanitation aboard their vessels by Assistant Surgeon General H. G. Hansen, director of the Robert A. Taft Sanitary Engineering Center of Cincinnati, Ohio, at ceremonies in Chicago's Edgewater Beach Hotel. Shown receiving the award are from left to right: Mr. A. T. Wood, President of Wilson Marine Transit Co., which operates Republic's fleet; Mr. F. W. Gaines, fleet engineer; and Mr. E. R. Johnson, Vice President—Operations, for Republic (far right). The ceremony marked the first time an entire fleet on the Great Lakes received the award.

UNITED STATES COAST GUARD

ADDRESS REPLY TO:

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MVI

7 JUL 1959

Commandant's Action
on

Marine Board of Investigation; foundering of the SS CARL D. BRADLEY, Lake Michigan, 18 November 1958 with loss of life

The record of the Marine Board of Investigation convened to investigate subject casualty together with its Findings of Fact, Opinions and Recommendations has been reviewed.

The SS CARL D. BRADLEY, Official Number 226776, a self-unloading bulk freighter of 10,028 gross tons, built in 1927, departed Gary, Indiana, on 17 November 1958 en route to Calcite, Michigan, in ballast. At the time of departure the wind was 25-35 MPH from the south and the weather forecast was for whole gale winds, 50 to 65 MPH from the south shifting to the southwest. The BRADLEY proceeded up the Wisconsin shore at distances off varying from 5 to 12 miles. Although the wind velocity increased during the period, sea conditions were not considered severe and the vessel was riding smoothly. Sometime early in the afternoon of 18 November in the vicinity of Cana Island course was altered to 046 degrees True to cross Lake Michigan toward Lansing Shoal. While proceeding on this course the wind reached a velocity of 60 to 65 MPH from the southwest. The speed of the vessel was between 14 and 15 knots. The seas were slightly on the starboard quarter and according to the Chief Mate, who was on watch at the time of the casualty and was one of the two survivors, the seas were estimated to be 20 feet in height with 50 to 75 feet between the crests. The vessel continued to ride smoothly, however, both as to roll and to pitch. At 1730 just at dusk while still on course 046 a noise described as a thud followed by a vibration was heard. The Chief Mate looked aft and saw the stern of the vessel sagging and it was immediately realized that the vessel was in serious trouble. The general alarm was sounded and the crew prepared to abandon ship. Distress calls on the radio-telephone were made by the Chief Mate who gave the vessel's position as 12 miles southwest of Gull Island Light. These calls were received by several radio stations, both commercial and Coast Guard. Within two or three minutes the BRADLEY heaved upward near No. 10 hatch, which is approximately amidships, and broke in two. The bow settled from aft, then rolled over and sank. The liferaft stowed forward which was being readied floated free. The stern settled from forward, then plunged with a flash of flame and smoke as the water reached the boiler room. Four crew members managed to board the liferaft immediately after the casualty but two were lost during the night.

A 254' German cargo vessel, the M/V CRISTIAN SARTORI, was approximately four miles from the BRADLEY at the time of the casualty and observed the flash of flame from which she concluded the BRADLEY had exploded. Course was immediately altered for the scene but due to the adverse sea conditions she did not arrive at the estimated position of the sinking until approximately one and one-half hours later.

Coast Guard air and surface units, assisted by the SARTORI until 0200, 19 November, searched the area throughout the night with the aircraft providing flare illumination. Weather conditions and darkness severely handi-

capped the search and it was not until 0825, 19 November, that the raft carrying the only two survivors was located. After daybreak eight other merchant vessels joined the search. Later in the morning the lifeboat from the after end of the BRADLEY was located in an overturned condition. Of the thirty-five persons reported to have been aboard the BRADLEY there were, in addition to the two survivors, eighteen bodies recovered. Fifteen are still missing and are presumed dead. At the present time efforts to locate and identify the wreck of the BRADLEY are still continuing.

REMARKS

Concurring with the Board, it is considered that the BRADLEY did not strike Boulder Reef but rather that she broke in two and the eruption of steam and combustible materials as she went down gave rise to the mistaken assumption on the part of the CRISTIAN SARTORI witnesses that the vessel exploded.

Although in all probability the vessel broke in hogging, the implication in the Board's conclusion that the fracture resulted because the vessel encountered an unusual wave condition while in ballast is not supported in the record. In the absence of any evidence of improper or unusual ballasting such reasoning would necessarily require an assumption that the waves were unique in the vessel's twenty-one year history of navigation in the Great Lakes. This premise and the conclusion must therefore be rejected, particularly in view of the survivors' description of how smoothly the vessel was riding; a point of which the Board took special note and which was further supported by the statement of the Second Mate of the SS JOHNSTOWN. For this reason the Board's conclusion that the Master of the BRADLEY exercised poor judgment in proceeding across northern Lake Michigan from Cana Island toward Lansing Shoal is also disapproved.

The Board has offered no other conclusions as to the possible cause of this disaster and an exhaustive review of the record has likewise failed to yield any positive determinations in this regard. Contrary to the Board's opinions, however, the following factors may have had some causal connection and cannot be discounted merely for the lack of probative evidence:

a. The unexplained presence of the hairline cracks discovered in the vessel's underbody amidships during drydocking in Chicago in May 1957 strongly suggest the possibility of structural weakness.

b. The two unreported groundings experienced by the BRADLEY in the spring of 1958 and November of 1958 may have introduced unusual hull stresses. It is because such possibilities exist that 46 CFR 136.05-1 requires a Notice of Marine Casualty to be filed with the Coast Guard in all cases of stranding or grounding whether or not there is apparent damage.

c. The extensive renewal of cargo hold side slopes, screen bulkheads and tank tops planned by the company

for the 1958-1959 winter lay-up is in itself indicative of wear and deterioration and raises the obvious question as to the general condition of the vessel's structure.

The possibilities raised by the foregoing coupled with the fact that the vessel broke up and foundered under conditions which, while severe, she should easily have been able to weather, leads inevitably to the conclusion that the vessel had developed an undetected structural weakness or defect. Due to the significance of such a possibility, particularly with respect to other vessels of similar design and vintage, consideration will be given to the initiation of an underwater survey of the BRADLEY depending, of course, on when and where the vessel is ultimately located and any other practical aspects which might limit the benefits to be derived from such examination.

Regardless of any other determinations, this casualty has emphasized the need for the program of technical evaluation to determine if there is any evidence of structural defects in other vessels of the Great Lakes fleet. Such a program has been initiated. In addition, a reappraisal of present inspection procedures as applied to Great Lakes vessels is indicated looking toward the adoption of such standards and methods that will increase the likelihood of early detection of possible structural

weaknesses particularly in the case of the older vessels. The Commander, Ninth Coast Guard District has been directed to make such a study with due regard for the peculiarities and problems attendant to the seasonal operation of Great Lakes vessels. In the course of such study the Commander, Ninth Coast Guard District has been directed to adopt any reasonable procedure within the framework of present laws and regulations and to make further recommendations for any legislative or regulatory changes which appear necessary. Finally, it is considered that this casualty has dictated a need for owners and operators to re-examine their responsibilities to establish and maintain safe operating and maintenance standards.

The Board's recommendations concerning life jacket crotch straps, an additional liferaft, lifeboat mechanical disengaging apparatus, lifeboat painters and parachute type distress signals merit further consideration and will be made the subject of study by the Merchant Marine Council.

Subject to the foregoing remarks, the record of the Marine Board of Investigation is approved.

A. C. RICHMOND,
Vice Admiral, U.S. Coast Guard,
Commandant



VENTILATION

RADAR PLOTTING SHEETS

Present requirements for certification as Radar Observer emphasize the importance of plotting as an aid to interpretation of radar information. The U.S. Navy Hydrographic Office has prepared a Radar Plotting Sheet (RPS), H.O. 2665b, to assist mariners in obtaining maximum useful information with a minimum plotting effort.

An experimental model of the form and a questionnaire will be distributed as a supplement to the October Pilot charts. The Hydrographic Office requests that the questionnaire be filled out and returned to them as early as practicable. Comments on the usefulness of the RPS, and any suggestions you may have for its improvement are invited.

The RPS does not supersede the *Maneuvering Board*, H.O. 2665 or 2665a, which is intended primarily for the solution of tactical maneuvering problems. Address your correspondence to the U.S. Navy Hydrographic Office, Navigational Science Division (Code 5310), Washington 25, D.C.

For ventilating continuously when the dew point of the outside air exceeded the dew point in the hold, a ship was found liable for water damage to a large quantity of canned goods it carried (1959 A.M.C. 938).

The vessel in question made a June voyage from Buenos Aires, across the equator to New Orleans, and the Court of Appeals affirmed a lower Court decision that it was a mistake for the ship to ventilate continuously at full draft and that the ventilation should have been shut off when the dew point outside exceeded the dew point inside the hold.

The Court further stated that when a carrier cannot give a lot of cargo the type of stowage or ventilation which its nature requires, the practice is for the carrier to refuse the cargo, or alternatively to notify the shipper and obtain the shipper's authorization to carry the cargo (inadequately) under the available stowage and ventilation.

In this case, the ventilation, partly mechanical and partly natural draft, was continuous, the moisture from the warmer tropical air deposited moisture especially on the colder cans in the center of the stow.

SEARCH AND RESCUE

Operators of disabled wooden craft that are, or may consider themselves to be, the object of a search are requested to hoist on a halyard or to otherwise place aloft any metallic object that would assist their detection by radar. All Coast Guard patrol vessels, planes and some buoy tenders, utilize this equipment and thus can continue searches in darkness and during other periods of low visibility if it can be assumed that the object of the search can be detected through the use of this aid.

Actual observations have shown that wooden hulls or other nonmetallic objects are suited as radar targets according to the size, orientation, shape, and other radar-reflecting qualities of the object. Their value as radar targets may be enhanced by the use of special radar-reflecting devices properly oriented and placed as high above the water line as possible. The largest metallic object available should be used.



MARITIME SIDELIGHTS

A document dealing with the safety aspects of nuclear merchant ship operations, entitled *Safety Considerations Affecting the Design and Installation of Water Cooled and Water-Moderated Reactors on Merchant Ships*, has been issued as Technical Bulletin 3-6 by the Society of Naval Architects and Marine Engineers. The document was prepared to serve as a safety guide for merchant ships powered by reactors of the pressurized and boiling water types by the Society's Atomic Energy Panel M-13 under the leadership of Arthur R. Gatewood, Vice President—Engineering, American Bureau of Shipping, New York. The panel included experts in construction and operation of nuclear reactors, ship designers, builders, operators and government agencies. Copies are available from the Society, 74 Trinity Place, New York 6, N.Y., at \$1 each.

◆ ◆ ◆

A contract has been awarded to Electric Boat Division, General Dynamics Corp., Groton, Conn., for preparation of drawings and testing of models of a 20-knot, 20,000-deadweight-ton nuclear-powered submarine tanker, it was announced by the Maritime Administration.

While there are many problems to be solved, not only in the design of submarine tankers, but also in connection with questions such as commercial manning, application of safety regulations, use of communications and navigation aids which will work under water, the potential advantages of a subsurface ship make it desirable for the Maritime Administration to continue to investigate the possibilities of such a ship in order to assure that the American merchant marine does not lag in the application of any scientific advance which might ultimately aid it commercially.

◆ ◆ ◆

For the year ending July 1, 11,110 vessels of all types transited the Panama Canal for a new alltime record. The previous high, set only 12 months ago, was topped by 557. Oceangoing ships of more than 300 tons accounted for 9,925 of the transits.



FRESH FROM HER FIRST annual inspection and overhaul, the SS *Atlantic* has resumed her schedule from New York to Holland and Belgium. This ship, formerly the *Badger Mariner*, now is certificated for the carriage of 919 passengers since her debut in the transatlantic trade in June 1958. Photo Courtesy American Banner Lines, Inc.

All future general-purpose dry-cargo ships built with a construction-differential subsidy will be fitted with a washdown system to counteract radioactive contamination, it was announced by the Maritime Administration. In addition, the new ships must have one 60-ton boom and 10-ton booms for at least three hatches.

◆ ◆ ◆

Maryland Shipbuilding & Drydock Co. of Baltimore, Md., has been awarded a \$7,000,000 contract to build two diesel powered container ships, the first new vessels of a type designed by George G. Sharp, Inc., naval architects for Containerships, Inc. Each vessel will be capable of transporting 2,100 short tons of cargo in 170 lightweight containers, one-fifth of which will be fitted for refrigerated cargo. Approximately fifty automobiles can be carried as deck cargo.

Operating plans call for two sailings a week in each direction between Brooklyn, New York and Jacksonville, Fla., when the vessels, tentatively named the *Containership New York* and the *Containership Florida*, are completed next summer.

The SS *United States* began her eighth year of operation with a record list of 1,807 passengers for an eastward crossing. The superliner, in the more than 155 round-trip voyages since entering service on July 3, 1952, has carried over 468,000 passengers across the Atlantic.

◆ ◆ ◆

It has been reported in the maritime press that Rear Admiral Harold C. Moore, USCG, will assume the office of President of the New York State University Maritime College, Fort Schuyler, N.Y., upon his retirement from the Coast Guard on October 1, 1959. Rear Admiral Moore is presently the Commander of the Twelfth Coast Guard District and Western Area in San Francisco, Calif.

◆ ◆ ◆

United Press International reports that the Fukada Salvage Co. threatens to sue the Okinawan government because someone stole five ships from the bottom of the Pacific one-half mile off Naha. The vessels, which were sunk by United States ships in World War II, had been purchased by Fukada for scrap.

MERCHANT MARINE PERSONNEL STATISTICS

MERCHANT MARINE OFFICER LICENSES ISSUED

QUARTER ENDING 30 JUNE 1959

DECK

Grade	Original	Renewal	Grade	Original	Renewal
Master:			Third mate:		
Ocean	47	477	Ocean	36	68
Coastwise	12	55	Coastwise		1
Great Lakes	6	30	Pilots:		
B.S. & L.	16	105	Great Lakes	1	22
Rivers	10	60	B.S. & L.	149	45
Radio Officer Licenses issued	11	521	Rivers	86	35
Chief mate:			Master: Uninspected Vessels	11	10
Ocean	29	106	Mate: Uninspected Vessels	32	50
Coastwise	1	7	Motorboat	395	801
Mate:			Total	863	2,499
Great Lakes			Grand total	3,362	
B.S. & L.					
Rivers					
Second mate:					
Ocean	21	106			
Coastwise					

ENGINEER

Grade	Original	Renewal	Grade	Original	Renewal
STREAM			First assistant engineer:		
Chief engineer:			Unlimited	7	22
Unlimited	31	517	Limited	14	15
Limited	20	108	Second assistant engineer:		
First assistant engineer:			Unlimited	4	16
Unlimited	40	161	Limited	2	5
Limited		9	Third assistant engineer:		
Second assistant engineer:			Unlimited	44	299
Unlimited	49	244	Limited	1	4
Limited	1	2	Chief engineer: Uninspected Vessels	9	15
Third assistant engineer:			Assistant engineer: Uninspected Vessels	3	6
Unlimited	70	212	Total	338	1,883
Limited			Grand Total	2,221	
MOTOR					
Chief engineer:					
Unlimited	5	106			
Limited	38	142			

WAIVER OF MANNING REQUIREMENTS

Waivers	Atlantic Coast	Gulf Coast	Pacific Coast	Great Lakes	Total
Deck officers substituted for higher ratings					
Engineer officers substituted for higher ratings					
Ordinary seamen for able seamen					
Wiper or coalpassers for qualified member engine dept			2		2
Total Waivers			2		2
Number of vessels			1		1

INVESTIGATING UNITS

Coast Guard Merchant Marine Investigating Units and Merchant Marine Details investigated a total of 3,643 cases during the second quarter of 1959. From this number, hearing before examiners resulted involving 64 officers and 231 unlicensed men. In the case of officers, 3 licenses were revoked, 10 were suspended without probation granted, 11 were suspended with probation granted, 2 cases were dismissed after hearing, and 2 hearings were closed with admonitions. Of the unlicensed personnel, 27 documents were revoked, 19 were suspended without probation, 75 were suspended with proba-

ORIGINAL SEAMEN'S DOCUMENTS ISSUED

Type of document	Atlantic Coast	Gulf Coast	Pacific Coast	Great Lakes and rivers	Total
Staff Officer	50	8	35	1	94
Continuous Discharge Book	3	6		1	10
Merchant Mariner's Documents	1,313	534	735	2,773	5,355
AB any waters unlimited	119	32	29	36	216
AB any waters, 12 months	58	12	22	94	186
AB Great Lakes, 18 months	5		3	41	49
AB Tugs and Towboats, any waters		1	2		3
AB Bays and Sounds					0
AB Seagoing Barges		2			2
Lifeboatman	135	2	40	8	185
QMED	149	35	38	138	360
Radio Operators	3		1		4
Certificate of Service	1,151	487	701	2,694	5,033
Tankerman	26	59	9	42	136
Total	3,612	1,178	1,615	5,828	11,633

tion granted, 12 cases were dismissed after hearing, and 15 hearings were closed with admonitions. Five licenses and 80 documents were voluntarily surrendered.

MERCHANT MARINE STATISTICS

There were 937 vessels of 1,000 gross tons and over in the active oceangoing U.S. merchant fleet on July 1, 1959, according to the Maritime Administration. This was 10 less than the number active on June 1, 1959.

There were 32 Government-owned and 905 privately owned ships in active service. These figures did not include privately owned vessels temporarily inactive, or Government-owned vessels employed in loading grain for storage. They also exclude 28 vessels in the custody of the Departments of Defense, State, and Interior.

There was a decrease of 11 active vessels and an increase of 13 inactive vessels in the privately owned fleet. Two freighters, the *Wang Knight*, and the *Pacific Ranger*, were returned from foreign to U.S.-flag. One tanker, the *Mobiloil*, was delivered from new construction, while a T-2 tanker, the *Valchem*, was converted to an oil storage ship. This increased the total privately owned fleet by two to 1,014.

Of the 109 privately owned inactive vessels, 42 dry cargo ships and 56 tankers were laid up for lack of employment, 29 more than on June 1. The others were undergoing repair or conversion.

The Maritime Administration's active fleet was one more than that of the previous month, while its inactive fleet increased by six. One Liberty ship was sold for scrap. Eight vessels were turned over by the Navy to the Administration for lay-up in the National Defense Reserve Fleet, making a net gain of seven in the Administration's fleet, or a total of 2,103. The total U.S. merchant fleet, active and inactive, increased by nine to 3,117.

One new oceangoing tanker, the *Mobiloil*, was delivered to U.S.-flag and one to foreign flag. A great Lakes bulk carrier, the *Adam E. Cornelius*, and a Mariner conversion, the *President Arthur*, were also delivered. No new ships were ordered. The total of large merchant ships on order or under construction in U.S. shipyards dropped by four ships to 72.

Seafaring jobs on active oceangoing U.S.-flag ships of 1,000 gross tons and over, excluding civilian seamen manning Military Sea Transportation ships, were 50,694. Prospective officers in training in Federal and State nautical schools numbered 72,500.

AMENDMENTS TO REGULATIONS

[EDITOR'S NOTE.—The material contained herein has been condensed due to space limitations. Copies of the Federal Registers containing the material referred to may be obtained from the Superintendent of Documents, Government Printing Office, Washington 25, D.C.]

TITLE 46—SHIPPING

Chapter I—Coast Guard, Department of the Treasury

[CGFR 59-27]

RULES OF THE ROAD AND PILOT RULES

Publication in Pamphlet or Placard Form

This document is to give public notice with respect to:

1. Availability of revised "Rules of the Road" pamphlets dated May 1, 1959, which supersede previous editions of similar pamphlets.

2. Discontinuance of certain placard forms containing regulatory "Pilot Rules," except for the Great Lakes.

3. Statutory requirements that vessels shall have and keep on board available for ready reference, where practicable, copies of the applicable "Rules of the Road" pamphlets.

4. Required changes in the vessel inspection regulations in 46 CFR Chapter I dealing with "Pilot Rules" and to prescribe necessary changes in language so as to substitute "Rules of the Road" for "Pilot Rules."

With respect to availability of current Coast Guard pamphlets, the 3 Coast Guard pamphlets containing the statutory and regulatory "Rules of the Road" were revised and brought up to date with an edition date of May 1, 1959, and the titles (but not the identification numbers) were revised as follows:

CG-169—Rules of the Road—International—Inland.

CG-172—Rules of the Road—Great Lakes.

CG-184—Rules of the Road—Western Rivers.

The pamphlets bearing the same identification numbers but different titles and edition dates prior to May 1, 1959, are not up to date and are superseded by the above described pamphlets dated May 1, 1959. The previous pamphlets were entitled:

CG-169—Rules To Prevent Collisions of Vessels and Pilot Rules for Certain Inland Waters of the Atlantic and Pacific Coasts and of the Coast of the Gulf of Mexico (edition dated April 1, 1958, and all prior editions).

CG-172—Pilot Rules for the Great Lakes and Their Connecting and Tributary Waters (edition dated April 1, 1958, and all prior editions).

CG-184—Pilot Rules for the Western Rivers (edition dated July 1, 1957, and all prior editions).

It is desired that wide publicity be given to the availability and use of these latest pamphlets regarding "Rules of the Road," which may be obtained upon request from local Coast Guard Officers in Charge, Marine Inspection, situated in the major ports in the United States, or from the Commandant (CHS), U.S. Coast Guard, Washington 25, D.C.

With respect to placard forms containing regulatory "Pilot Rules," it is no longer necessary that certain placards be distributed and posted on vessels and craft navigating certain inland waters and the western rivers. These placard forms, which will no longer be printed and will no longer be required to be kept posted by the Coast Guard, are:

CG-803—Pilot Rules for Certain Inland Waters of the Atlantic and Pacific Coasts and Coast of the Gulf of Mexico (all edition dates).

CG-804a—Rules for Lights for Barges, Canal Boats, Scows and Other Vessels of Nondescript Type Not Otherwise Provided for When Being Towed (all edition dates).

CG-805—Pilot Rules for the Western Rivers and the Red River of the North (all edition dates).

CG-3018—General Regulations of the

Corps of Engineers, Department of the Army, and the United States Coast Guard (all edition dates).

NOTE: This action does not change requirements of the Corps of Engineers which still requires its General Regulations to be posted on specified vessels navigating the Great Lakes.

In this regard, however, it should also be noted that the Act of August 14, 1958, did not alter the provisions in section 3 of the Act of February 8, 1895, as amended (33 U.S.C. 243), with respect to placards quoting portions of the regulatory "Pilot Rules" for the Great Lakes. Therefore, all steam vessels over 65 feet in length when navigating on the Great Lakes must continue to keep posted in conspicuous places 2 copies of placard form CG-807, entitled "Pilot Rules for the Great Lakes and Their Connecting and Tributary Waters." Since this placard is a copy of the same regulatory "Pilot Rules" which are in the revised pamphlet "Rules of the Road—Great Lakes" (CG-172), it is not considered necessary to reprint this placard or revise its title at this time.

With respect to statutory requirements for vessels to keep (where practicable) applicable "Rules of the Road" pamphlets on board available for ready reference, it should be noted that one of the purposes of the Act of August 14, 1958 (Pub. Law 85-656; S. 3951), was described in Senate Report No. 1842 (bottom page 3 and top page

NUMBERED AND UNDOCUMENTED VESSELS

The table below gives the cumulative total of undocumented vessels numbered under the provisions of the Act of June 7, 1918, as amended (46 USC 288), for the quarter ended 30 June 1959. Generally speaking, undocumented vessels are those machinery-propelled vessels of less than 5 net tons engaged in trade which by reason of tonnage are exempt from documentation. They also include all other vessels propelled in whole or in part by machinery which have not been issued marine documents by the Customs, owned in the United States and found on the navigable waters thereof.

Alabama.....	6,530	Kentucky.....	3,774	Ohio.....	19,609
Alaska.....	8,475	Louisiana.....	27,733	Oklahoma.....	398
Arizona.....	366	Maine.....	10,002	Oregon.....	8,737
Arkansas.....	1,157	Maryland.....	24,970	Pennsylvania.....	14,601
California.....	45,958	Massachusetts.....	20,968	Puerto Rico.....	607
Colorado.....	68	Michigan.....	28,356	Rhode Island.....	5,891
Connecticut.....	12,636	Minnesota.....	5,654	South Carolina.....	2,092
Delaware.....	3,103	Mississippi.....	4,382	South Dakota.....	238
District of Columbia.....	2,819	Missouri.....	6,380	Tennessee.....	5,532
Florida.....	39,385	Montana.....	121	Texas.....	17,555
Georgia.....	3,471	Nebraska.....	600	Utah.....	243
Guam.....	62	Nevada.....	891	Vermont.....	1,407
Hawaii.....	4,239	New Hampshire.....	653	Virginia.....	19,286
Idaho.....	778	New Jersey.....	29,535	Virgin Islands.....	158
Illinois.....	16,393	New Mexico.....	43	Washington.....	28,242
Indiana.....	3,753	New York.....	62,212	West Virginia.....	1,083
Iowa.....	3,180	North Carolina.....	9,758	Wisconsin.....	6,498
Kansas.....	379	North Dakota.....	111	Wyoming.....	19

Total.....521,361

4) to accompany S. 3951, in this manner:

The bill would also amend section 2(a) of the act of June 7, 1897, as amended, and section 4233A(a) of the Revised Statutes by deleting from each the requirement that "two printed copies of such rules shall be furnished to all vessels and craft mentioned in this subsection, which rules shall, where practicable, be kept posted up in conspicuous places thereon," and substituting the provision that "a pamphlet containing such act and regulations shall be furnished to all vessels and craft subject to this act. On vessels and craft over 65 feet in length the pamphlet shall, where practicable, be kept on board and available for ready reference." The existing provision requires that only the rules be kept on board (i.e., posted). It is essential that the statutory rules also be kept on board. The Coast Guard now publishes the statutory and regulatory rules together in a pamphlet. The requirement that the rules be posted is not necessary. It is only necessary that the rules be handy in pamphlet form for ready reference, where practicable. Moreover, the existing requirement applies only to vessels and craft mentioned in the subsection. There are many other vessels that should be required to carry the rules pamphlet, where practicable. The proposed amending language reflects the foregoing considerations.

The statutory changes as a result of the Act of August 14, 1958, became effective on that date. It is the policy of the Commandant that the Coast Guard make every effort to publicize such important changes to owners and operators of vessels. The Coast Guard has available as indicated above the required pamphlets containing the "Rules of the Road," so that every vessel can have on board and readily available for use the current edition of the applicable pamphlet.

Attention is invited to the fact that failure to have the required "Rules of the Road" pamphlet on board and readily available (where practicable) on vessels and craft over 65 feet in length while on the inland waters and western rivers, or 2 copies of the placard form CG-807 while on the Great Lakes, may be grounds for assessment of a \$500 penalty against such vessels or craft.

Finally, with respect to required changes in the vessel inspection regulations in 46 CFR Chapter I, the detailed amendments set forth in this document are editorial and in general accomplish the following:

a. Substitute the phrase "Rules of the Road" for "Pilot Rules."

b. When necessary also indicate whether the "Rules of the Road" are "International," "Inland," "Great Lakes," or "Western Rivers."

c. When necessary revise regulations to show that "Rules of the Road"

include both statutory and regulatory requirements.

d. When necessary delete navigation requirements from regulations which paraphrase statutory "Rules of the Road."

e. Revise and bring up-to-date informational regulations regarding Coast Guard pamphlets or forms.

Because the regulations in this document are editorial in nature or based on statutory changes contained in the Act of August 14, 1958, it is hereby found that compliance with the Administrative Procedure Act (respecting notice of proposed rule making, public rule making procedures thereon, and effective date requirements thereof) is deemed to be unnecessary.

By virtue of the authority vested in me as Commandant, United States Coast Guard, by Treasury Department Orders 120, dated July 31, 1950 (15 F.R. 6521), 167-9, dated August 3, 1954 (19 F.R. 5915), 167-14, dated November 26, 1954 (19 F.R. 8026), 167-20, dated June 18, 1956 (21 F.R. 4894), CGFR 56-28, dated July 24, 1956 (21 F.R. 7605), to promulgate regulations in accordance with the statutes cited with the regulations below, the following regulations are prescribed and shall become effective upon the date of publication of this document in the Federal Register.

TITLE 33—NAVIGATION AND NAVIGABLE WATERS

Chapter I—Coast Guard, Department of the Treasury

SUBCHAPTER C—AIDS TO NAVIGATION [CGFR 58-50]

MISCELLANEOUS AMENDMENTS TO SUBCHAPTER

The purpose of the following amendments to the regulations is to:

(a) Elaborate upon existing requirements and to clarify ambiguities found to exist;

(b) Define with greater particularity the procedures to be followed;

(c) Clarify the charges to be made in performing aids to navigation work for other agencies;

(d) Amend the regulations governing inspection of private aids to navigation; and

(e) Revise the regulations relative to the marking of structures in and over navigable waters to bring them in conformance with Public Law 550, 84th Congress, 2d session, approved June 4, 1956, which amended 14 U.S.C. 85. This law clarifies and consolidates the authority to require the

establishment, maintenance, and operation of aids to maritime navigation on fixed structures including dams, in or over navigable waters of the United States.

By virtue of the authority vested in me as Commandant, United States Coast Guard, by Treasury Department Orders 167-3 dated May 6, 1953 (18 F.R. 2962), 167-15 dated January 3, 1955 (20 F.R. 840), 167-17 dated June 29, 1955 (20 F.R. 4976), and 167-23 dated July 27, 1956 (21 F.R. 5852), to promulgate regulations in accordance with the statutes cited with the regulations below, the following amendments to the regulations are prescribed which shall become effective upon the date of publication of this document in the Federal Register.

(Federal Register of July 11, 1959)

TITLE 46—SHIPPING

Chapter I—Coast Guard, Department of the Treasury

SUBCHAPTER S—NUMBERING OF UNDOCUMENTED VESSELS, STATISTICS ON NUMBERING, AND "BOATING ACCIDENT REPORTS" AND ACCIDENT STATISTICS [CGFR 59-28]

PART 172—NUMBERING REQUIREMENTS UNDER ACT OF JUNE 7, 1918

Subpart 172.25—Termination Requirements

FLORIDA SYSTEM OF NUMBERING APPROVED

Acting under the authority delegated by Treasury Department Order 167-32, dated September 23, 1958 (23 F.R. 7605), the Commandant, United States Coast Guard, on June 25, 1959, approved the Florida system for the numbering of motorboats, which was established pursuant to the Federal Boating Act of 1958.

As provided in this approval, the Florida system shall be operative on and after Monday, July 20, 1959. On that date the authority to number motorboats principally used in the State of Florida will pass to that State and simultaneously the Coast Guard will discontinue numbering such motorboats. Those motorboats presently numbered should continue to display the Coast Guard number until renumbered by Florida. On and after July 20, 1959, all reports of "boating accidents" which involve motorboats numbered in Florida will be required to be reported to the nearest county sheriff in Florida pursuant to the Florida Motorboat Registration and Certification Act of 1959.

Because § 172.25-15(a), as set forth in this document, is an informative

rule about official actions performed by the Commandant, it is hereby found that compliance with the Administrative Procedure Act (respecting notice of proposed rule making, public rule making procedures thereon, and effective date requirements thereof) is unnecessary.

By virtue of the authority vested in me as Commandant, United States Coast Guard, by Treasury Department Orders 120, dated July 31, 1950 (15 F.R. 6521), and 167-17, dated June 29, 1955 (20 F.R. 4976), to promulgate rules in accordance with the statutes cited with the informative rule below, the following § 172.25-15(a) is prescribed and shall be in effect on and after the date set forth therein:

§ 172.25-15 Effective dates for approved State systems of numbering.

(a) The following State systems of numbering have been approved with effective dates as follows:

(1) Florida—July 20, 1959.

(Sec. 3, 60 Stat. 238, and sec. 633, 63 Stat. 545; 5 U.S.C. 1002, 14 U.S.C. 633)

Dated: July 7, 1959.

[SEAL] A. C. RICHMOND,
Vice Admiral, U.S. Coast Guard,
Commandant.

[F.R. Doc. 59-5748; Filed, July 10, 1959;
8:48 a.m.]

TITLE 46—SHIPPING

Chapter I—Coast Guard, Department of the Treasury

[CGFR 59-26]

INFLATABLE LIFE RAFTS AND MARKING OF LIFEBOATS

Pursuant to the notice of proposed rule making published in the *FEDERAL REGISTER* on April 9, 1959 (24 F.R. 2742-2751), the Merchant Marine Council held a Public Hearing on April 27, 1959, for the purpose of receiving comments, views and data. The proposals considered were identified as Items I through XII, inclusive. The proposed regulations regarding inflatable life rafts and marking of lifeboats were set forth as Item I in the Agenda, CG-249. A summary of the proposals was set forth in the previously mentioned Federal Register of April 9, 1959.

This document is the seventh of a series covering the regulations and actions considered at the April 27, 1959, Public Hearing and annual session of the Merchant Marine Council.

This document contains the final actions taken with respect to the pro-

posed changes in Item I regarding lifesaving appliances. On the basis of information received changes were made in the specification for inflatable life rafts designated 46 CFR Subpart 180.051. The proposals as set forth in Item I, as revised, are adopted and included herein.

By virtue of the authority vested in me as Commandant, United States Coast Guard, by Treasury Department Orders 120, dated July 31, 1950 (15 F.R. 6521), 167-14, dated November 28, 1954 (19 F.R. 8026), 167-20, dated June 18, 1956 (21 F.R. 4894), and CGFR 56-28, dated July 24, 1956 (21 F.R. 5659), to promulgate regulations in accordance with the statutes cited with the regulations below, the following amendments and regulations are prescribed and shall become effective on the date of publication of this document in the Federal Register; however, with respect to markings of lifeboats, compliance shall be accomplished by the date specifically provided in the text of the regulations:

(Federal Register of July 9, 1959)

DEPARTMENT OF THE TREASURY

Coast Guard

[CGFR 59-19]

EQUIPMENT, INSTALLATIONS, OR MATERIALS, AND CHANGE IN NAME AND ADDRESS OF MANUFACTURERS

Approval and Termination of Approval; Amendments of Prior Documents

Correction

In F.R. Doc. 59-5143, appearing at page 5024 of the issue for Saturday, June 20, 1959, the following changes should be made:

1. On page 5027, in the table under Approval No. 162.001/143/1, the last Type No. in the column should be "1415NC".

2. On page 5028, in the second line under the heading Fire Extinguishers, Portable, Hand, Chemical Foam Type, "Symbol GS" should read "Symbol GE".

3. On page 5030, in the second and fifth paragraphs, "The Bastion-Blessing Co." should read "The Bastian-Blessing Co.".

4. On page 5030, in the paragraph under the heading Deck Coverings, "Johns-Mansville" should read "Johns-Manville".

(Federal Register of July 8, 1959)

TITLE 46—SHIPPING

Chapter I—Coast Guard, Department of the Treasury

SUBCHAPTER N—EXPLOSIVES OR OTHER DANGEROUS ARTICLES OR SUBSTANCES AND COMBUSTIBLE LIQUIDS ON BOARD VESSELS

[CGFR 59-14]

PART 146—TRANSPORTATION OR STORAGE OF EXPLOSIVES OR OTHER DANGEROUS ARTICLES OR SUBSTANCES AND COMBUSTIBLE LIQUIDS ON BOARD VESSELS

PART 147—USE OF DANGEROUS ARTICLES AS SHIPS' STORES AND SUPPLIES ON BOARD VESSELS

Miscellaneous Amendments Respecting Dangerous Cargoes

Pursuant to the notice of proposed rule making published in the Federal Register on April 9, 1959 (24 F.R. 2742-2751), and Merchant Marine Council Public Hearing Agenda, CG-249, dated April 27, 1959, the Merchant Marine Council held a Public Hearing on April 27, 1959, for the purpose of receiving comments, views and data. The proposals considered were identified as Items I through XII, inclusive. The proposed regulations regarding the transportation and stowage of dangerous cargoes on board merchant vessels were set forth as Item IX in the Agenda, CG-249. A summary of the proposals was set forth in the previously mentioned Federal Register of April 9, 1959.

This document is the sixth of a series covering the regulations and actions considered at the April 27, 1959 Public Hearing and annual session of the Merchant Marine Council. The first document, CGFR 59-17 (24 F.R. 4057), contains the action taken with respect to Item VIII regarding power-operated industrial trucks. The second document, CGFR 59-20 (24 F.R. 4169), contains the actions taken with respect to Item XI regarding suspension or revocation proceedings involving licenses, certificates or documents issued to individuals. The third document, CGFR 59-16 (24 F.R. 4213), contains the final actions taken with respect to Item X regarding licensing or certifying of seamen, motorboat operators, or staff officers. The fourth document, CGFR 59-15, contains the final actions taken with respect to Item XII regarding the person in charge of a manned platform and emergency signals, and with respect to use of work vests on

offshore artificial islands and fixed structures considered with Item VII. The fifth document, CGFR 59-22, contains the action taken with respect to Item VII regarding work vests on vessels inspected and certificated by the Coast Guard.

This document contains the final actions taken with respect to the proposed changes in Item IX regarding dangerous cargoes. On the basis of information received changes were made in 46 CFR 146.20-23(g), 146.21-25 (d), (e), 146.22-5(b), 146.22-15(b), 146.22-30(c) (1) and (2), (d) (2), 146.22-100, and 146.25-45.

Final action with respect to 46 CFR 146.22-40 pertaining to nitro carbo nitrate was delayed for an additional sixty days from April 27, 1959, in which to permit submission of additional written comments. When action is completed with respect to nitro carbo nitrate, notification of change in regulations will be published in the Federal Register as a separate Federal Register Document.

The provisions of R.S. 4472, as amended (46 U.S.C. 170), require that the land and water regulations governing the transportation of dangerous cargo articles or substances shall be as nearly parallel as practical. The provisions in 46 CFR 146-02-18 and 146.02-19 make the Dangerous Cargo Regulations applicable to all shipments of dangerous cargoes by vessels. The Interstate Commerce Commission in Orders Nos. 37 and 38 has made changes in the ICC Regulations with respect to the definitions, descriptive names, classifications, specifications of containers, packing, marking, labeling, and certification, which are now in effect for land transportation. Various amendments to the Dangerous Cargo Regulations in 46 CFR Part 146 have been included in this document in order that these regulations governing water transportation of certain dangerous cargoes will be as nearly parallel as practicable with the regulations of the Interstate Commerce Commission which govern the land transportation of the same commodities. For those changes in 46 CFR Parts 146 and 147, which involved changes other than shippers' requirements, the proposed amend-

ments were considered at the Merchant Marine Council Public Hearing held on April 27, 1959.

The amendments to 46 CFR Part 146, which were not described in the Federal Register of April 9, 1959 (24 F.R. 2748, 2749), are considered to be interpretations of law, or revised requirements to agree with existing ICC Regulations, or relaxations of previous requirements, or editorial in nature, and it is hereby found that compliance with the Administrative Procedure Act (respecting notice of proposed rule making, public rule making procedure thereon, and effective date requirements thereof) is unnecessary with respect to such changes.

By virtue of the authority vested in me as Commandant, United States Coast Guard, by Treasury Department Orders 120, dated July 31, 1950 (15 F.R. 6521), 167-14, dated November 26, 1954 (19 F.R. 8026), and CGFR 56-28, dated July 24, 1956 (21 F.R. 5659), to promulgate regulations in accordance with the statutes cited with the regulations below, the following amendments are prescribed and shall become effective on July 1, 1959:

(Federal Register of June 30, 1959)

TITLE 46—SHIPPING

Chapter I—Coast Guard, Department of the Treasury

SUBCHAPTER 5—NUMBERING OF UNDOCUMENTED VESSELS, STATISTICS ON NUMBERING, AND "BOATING ACCIDENT REPORTS" AND ACCIDENT STATISTICS

[CGFR 59-32]

PART 172—NUMBERING REQUIREMENTS UNDER ACT OF JUNE 7, 1918

Subpart 172.25—Termination Requirements

UTAH SYSTEM OF NUMBERING APPROVED

Acting under the authority delegated by Treasury Department Order 167-32, dated September 23, 1958 (23 F.R. 7605), the Commandant, United States Coast Guard, on July 13, 1959, approved the Utah system for the

numbering of motorboats, which was established pursuant to the Federal Boating Act of 1958.

As provided in this approval, the Utah system shall be operative on and after Monday, July 20, 1959. On that date the authority to number motorboats principally used in the State of Utah will pass to that State and simultaneously the Coast Guard will discontinue numbering such motorboats. Those motorboats presently numbered should continue to display the Coast Guard number until renumbered by Utah. On and after July 20, 1959, all reports of "boating accidents" which involve motorboats numbered in Utah will be required to be reported to the Supervisor of Boating, Utah State Park and Recreation Commission, pursuant to the regulations prescribed under the 1959 Utah Boating Act.

Because § 172.25-15(a)(3), as set forth in this document, is an informative rule about official actions performed by the Commandant, it is hereby found that compliance with the Administrative Procedure Act (respecting notice of proposed rule making, public rule making procedures thereon, and effective date requirements thereof) is unnecessary.

By virtue of the authority vested in me as Commandant, United States Coast Guard, by Treasury Department Orders 120, dated July 31, 1950 (15 F.R. 6521), and 167-17, dated June 29, 1955 (20 F.R. 4976), to promulgate rules in accordance with the statutes cited with the informative rule below, the following § 172.25-15(a)(3) is prescribed and shall be in effect on and after the date set forth therein:

§ 172.25-15 Effective dates for approved State systems of numbering.

(a) * * *

(3) Utah—July 20, 1959.

(Sec. 3, 80 Stat. 238, and sec. 633, 63 Stat. 545; 5 U.S.C. 1002, 14 U.S.C. 633)

Dated: July 20, 1959.

[SEAL] J. A. HIRSHFIELD,
Rear Admiral, U.S. Coast Guard,
Acting Commandant.

[F.R. Doc. 59-6143; Filed, July 24, 1959; 8:50 a.m.]

ACCEPTABLE HYDRAULIC CAST IRON VALVES

Hydraulic cast iron valves, gasket mounted, which have passed high shock tests and accepted under the provision of 46 CFR 55.07-1(e) (3).

Manufacturer	Valve Type	Model	Drawing No.
The Oilgear Co., 1580 W. Pierce St., Milwaukee 4, Wis.	Mechanically operated 4-way directional control valve.	VLDF*-**, 1½" maximum size.	75063, list No. L-704592-D.

NAVIGATION AND VESSEL INSPECTION CIRCULAR NO. 4-59

July 15, 1959

Subj: Requirements as to pamphlets on the "Rules of the Road" and as to placards containing regulatory "Pilot Rules."

1. *Purpose.* This circular is to direct the attention of masters, owners and operators of vessels to:

a. Availability of revised "Rules of the Road" pamphlets dated May 1, 1959, which supersede previous editions of similar pamphlets.

b. Discontinuance of certain placard forms containing regulatory "Pilot Rules," except for the Great Lakes.

c. Statutory requirements that certain vessels shall have and keep on board available for ready reference, where practicable, copies of the applicable "Rules of the Road" pamphlets.

2. *Background.* The Act of August 14, 1958, amended certain requirements with respect to pamphlets and placards regarding "Rules of the Road," which is described in Senate Report No. 1842 of July 16, 1958, in this manner:

The bill would also amend section 2(a) of the act of June 7, 1897, as amended, and section 4233A (a) of the Revised Statutes by deleting from each the requirement that "two printed copies of such rules shall be furnished to all vessels and craft mentioned in this subsection, which rules shall, where practicable, be kept posted up in conspicuous places thereon," and substituting the provision that "a pamphlet containing such act and regulations shall be furnished to all vessels and craft subject to this act. On vessels and craft over 65 feet in length the pamphlet shall, where practicable, be kept on board and available for ready reference." The existing provision requires that only the rules be kept on board (i.e., posted). It is essential that the statutory rules also be kept on board. The Coast Guard now publishes the statutory and regulatory rules together in a pamphlet. The requirement that the rules be posted is not necessary. It is only necessary that the rules be handy in pamphlet form for ready reference, where practicable. Moreover, the existing requirement applies only to vessels and craft mentioned in the subsection. There are many other vessels that should be required to carry the rules pamphlet, where practicable. The proposed amending language reflects the foregoing considerations.

3. *Publications superseded.* The following Coast Guard pamphlets are discontinued and superseded by revised "Rules of the Road" pamphlets described in paragraph 4 below:

CG-169—Rules to Prevent Collisions of Vessels and Pilot Rules for Certain Inland Waters of the Atlantic and Pacific Coasts and of the Coast of the Gulf of Mexico (Edition dated April 1, 1958, and all prior editions).

CG-172—Pilot Rules for the Great Lakes and Their Connecting and Tributary Waters (Edition dated April 1, 1958, and all prior editions).

CG-184—Pilot Rules for the Western Rivers (Edition dated July 1, 1957, and all prior editions).

4. *"Rules of the Road" pamphlets.* The 3 Coast Guard pamphlets containing the statutory and regulatory "Rules of the Road" were revised and brought up-to-date with an edition of May 1, 1959, and the titles (but not the identification numbers) were revised as follows:

CG-169—Rules of the Road—International—Inland.

CG-172—Rules of the Road—Great Lakes.

CG-184—Rules of the Road—Western Rivers.

These latest pamphlets may be obtained upon request from local Coast Guard Officers in Charge, Marine Inspection, situated in the major ports in the United States, or from the Commandant (CHS), U.S. Coast Guard, Washington 25, D.C.

5. *Placards containing regulatory "Pilot Rules."* It is no longer necessary that certain placards be distributed and posted on vessels and craft navigating certain inland waters and the western rivers. These placard forms, which will no longer be printed nor required to be kept posted by the Coast Guard, are:

CG-803—Pilot Rules for Certain Inland Waters of the Atlantic and Pacific Coasts and Coast of the Gulf of Mexico.

CG-804a—Rules for Lights for Barges, Canal Boats, Scows, and Other Vessels of Nondescript Type Not Otherwise Provided for When Being Towed.

CG-805—Pilot Rules for the Western Rivers and the Red River of the North.

CG-3018—General Regulations of the Corps of Engineers, Department of the Army, and the United States Coast Guard. (NOTE: This action does not change requirements of the Corps of Engineers which require its "General Regulations" in placard form to be posted on specified types of vessels navigating the Great Lakes.)

In this regard, however, it should also be noted that the Act of August 14, 1958, did not alter the provisions in section 3 of the Act of February 8, 1895, as amended (33 U.S.C. 243), with respect to placards containing regulatory "Pilot Rules" for the Great Lakes. Therefore, all vessels described in paragraph 90.15(b) of the "Rules of the Road—Great Lakes" (CG-172), when navigating on the Great Lakes, must continue to keep

posted in conspicuous places 2 copies of placard form CG-807, entitled "Pilot Rules for the Great Lakes and Their Connecting and Tributary Waters." Since these regulatory "Pilot Rules" are a copy of the same regulations which are in the pamphlet "Rules of the Road—Great Lakes," it is not considered necessary to revise or reissue this placard at this time.

6. *Policy.* The statutory changes as a result of the Act of August 14, 1958, became effective on that date. It is the policy of the Commandant that the Coast Guard make every effort to publicize such important changes to owners and operators of vessels. The Coast Guard has available as indicated above the required pamphlets containing the "Rules of the Road," so that every vessel can have on board and readily available for use the current edition of the applicable pamphlet. Attention is invited to the fact that failure to have the required "Rules of the Road" pamphlet on board and readily available, where practicable, for use on vessels and craft over 65 feet in length while on the inland waters and western rivers, or two copies of the placard form CG-807 while on the Great Lakes, may be grounds for assessment of a \$500.00 penalty against such vessels or craft.

7. Action.

a. It is urged that masters, owners and operators of vessels and craft over 65 feet in length obtain May 1, 1959, copies of the applicable "Rules of the Road" pamphlet and keep them on board available for ready reference, where practicable.

b. While not required by law to be carried on most Great Lakes' vessels or on motorboats or craft 65 feet or under in length, it is recommended that copies also be kept on board such vessels and available for ready reference, where practicable.

H. T. JEWELL,
Rear Admiral, USCG,
Chief, Office of Merchant
Marine Safety.

By direction of the Commandant.

EQUIPMENT APPROVED BY THE COMMANDANT

(EDITOR'S NOTE.—Due to space limitations, it is not possible to publish the documents regarding approvals and terminations of approvals of equipment published in the Federal Register dated July 28, 1959 (CGFR 59-30). Copies of these documents may be obtained from the Superintendent of Documents, Washington 25, D.C.]

ARTICLES OF SHIPS' STORES AND SUPPLIES

Articles of ships' stores and supplies certificated from 1 July to 31 July 1959, inclusive, for use on board vessels in accordance with the provisions of Part 147 (46 CFR 146-147) of the Dangerous Cargo Regulations are as follows:

CERTIFIED

The Penetone Co., Manufacturing Chemists, Tenafly, N.J., Certificate No. 392, dated 7 July 1959, MARINE-PC-6.

Astor Supply Co., Inc., 9 North Moore St., New York 13, N.Y., Certificate No. 393, dated 20 July 1959, ASTOR HICO PINE OIL DISINFECTANT.

Astor Supply Co., Inc., 9 North Moore St., New York 13, N.Y., Certificate No. 394, dated 20 July 1959, ASTOR PINE ODOR DISINFECTANT.

Corrosion Reaction Consultants, 116 Chestnut St., Philadelphia 6, Pa., Certificate No. 395, dated 21 July 1959, RACO CORROSION INHIBITOR.

AFFIDAVITS

The following affidavits were accepted during the period from 15 June 1959 to 15 July 1959:

Donegal Steel Foundry Co., Marietta, Pa., CASTINGS.

Marine Moisture Control Co., 39 Redfern Ave., Inwood 96, Long Island, N.Y., FLANGES.¹

FUSIBLE PLUGS

The regulations prescribed in Subpart 162.014, Subchapter Q Specifications, require that manufacturers submit samples from each heat of fusible plugs for test prior to plugs manufactured from the heat being used on vessels subject to inspection by the Coast Guard. A list of approved heats which have been tested and found acceptable during the period from 15 June 1959 to 15 July 1959 is as follows:

The Lunkenheimer Co., Cincinnati 14, Ohio. Heat Nos. 599, 600, 601, 602, 603, 604, and 605.

¹ Affidavit covers C-L coupling camlock flanges, of the 3 cam type, manufactured for marine service and limited to class II piping and a maximum operating pressure of 150 p.s.i. with water or liquid petroleum products.



MARINE SAFETY PUBLICATIONS AND PAMPHLETS

The following publications and pamphlets are available and may be obtained upon request from the nearest Marine Inspection Office of the United States Coast Guard. Date of each publication is indicated following title.

CG No.

Title of Publication

- 101 Specimen Examinations for Merchant Marine Deck Officers. 7-1-58
- 108 Rules and Regulations for Military Explosives and Hazardous Munitions. 8-1-58
- 115 Marine Engineering Regulations and Material Specifications. 3-1-58
- 123 Rules and Regulations for Tank Vessels. 4-1-58
- 129 Proceedings of the Merchant Marine Council. Monthly
- 169 Rules of the Road—International—Inland. 5-1-59
- 172 Rules of the Road—Great Lakes. 5-1-59
- 174 A Manual for the Safe Handling of Inflammable and Combustible Liquids. 7-2-51
- 175 Manual for Lifeboatmen and Able Seamen, Qualified Members of Engine Department, and Tankerman. 6-1-55
- 176 Load Line Regulations. 9-2-58
- 182 Specimen Examinations for Merchant Marine Engineer Licenses. 5-1-57
- 184 Rules of the Road—Western Rivers. 5-1-59
- 190 Equipment Lists. 4-1-58
- 191 Rules and Regulations for Licensing and Certifying of Merchant Marine Personnel. 9-15-55
- 200 Marine Investigation Regulations and Suspension and Revocation Proceedings. 7-1-58
- 220 Specimen Examination Questions for Licenses as Master, Mate, and Pilot of Central Western Rivers Vessels. 4-1-57
- 227 Laws Governing Marine Inspection. 7-3-50
- 239 Security of Vessels and Waterfront Facilities. 7-1-58
- 249 Merchant Marine Council Public Hearing Agenda. Annually
- 256 Rules and Regulations for Passenger Vessels. 3-2-59
- 257 Rules and Regulations for Cargo and Miscellaneous Vessels. 3-2-59
- 258 Rules and Regulations for Uninspected Vessels. 7-1-55
- 259 Electrical Engineering Regulations. 9-2-58
- 266 Rules and Regulation for Bulk Grain Cargo. 5-1-59
- 267 Rules and Regulations for the Numbering of Undocumented Vessels and the Reporting of Boating Accidents. 5-1-59
- 268 Rules and Regulations for Manning of Vessels. 9-3-57
- 269 Rules and Regulations for Nautical Schools. 11-1-53
- 270 Rules and Regulations for Marine Engineering Installations Contracted for Prior to July 1, 1935. 11-19-52
- 290 Pleasure Craft. 7-1-59
- 293 Miscellaneous Electrical Equipment List. 3-10-59
- 320 Rules and Regulations for Artificial Islands and Fixed Structures on the Outer Continental Shelf. 1-2-57
- 323 Rules and Regulations for Small Passenger Vessels. (Not More Than 65 Feet in Length) 6-1-58
- 329 Fire Fighting Manual for Tank Vessels. 4-1-58

Official changes in rules and regulations are published in the Federal Register, which is printed daily except Sunday, Monday and days following holidays. The Federal Register is a sales publication and may be obtained from the Superintendent of Documents, Government Printing Office, Washington 25, D.C. It is furnished by mail to subscribers for \$1.50 per month or \$15 per year, payable in advance. Individual copies desired may be purchased as long as they are available. The charge for individual copies of the Federal Register varies in proportion to the size of the issue and will be 15 cents unless otherwise noted on the table of changes below.

Changes Published During July 1959

The following have been modified by Federal Register:

- CG-190 Federal Register, July 8, 1959, and July 28, 1959.
- CG-123, CG-256, CG-257, and CG-269 Federal Register, July 9, 1959.
- CG-267 Federal Register, July 11, 1959, July 18, 1959, and July 25, 1959.
- CG-123, CG-191, CG-256, CG-257, CG-258, CG-259, and CG-323 Federal Register, July 21, 1959.

PRACTICE SHIPBOARD SAFETY

MATSON NAVIGATION CO.

DON'T boot our Pad
eyes around —
they're permanent!

WALK WITH
CAUTION.

GRANDON
SEAL

